

CASE STUDY

Integrated Planning: Office building renovation

📍 Zurich, Switzerland

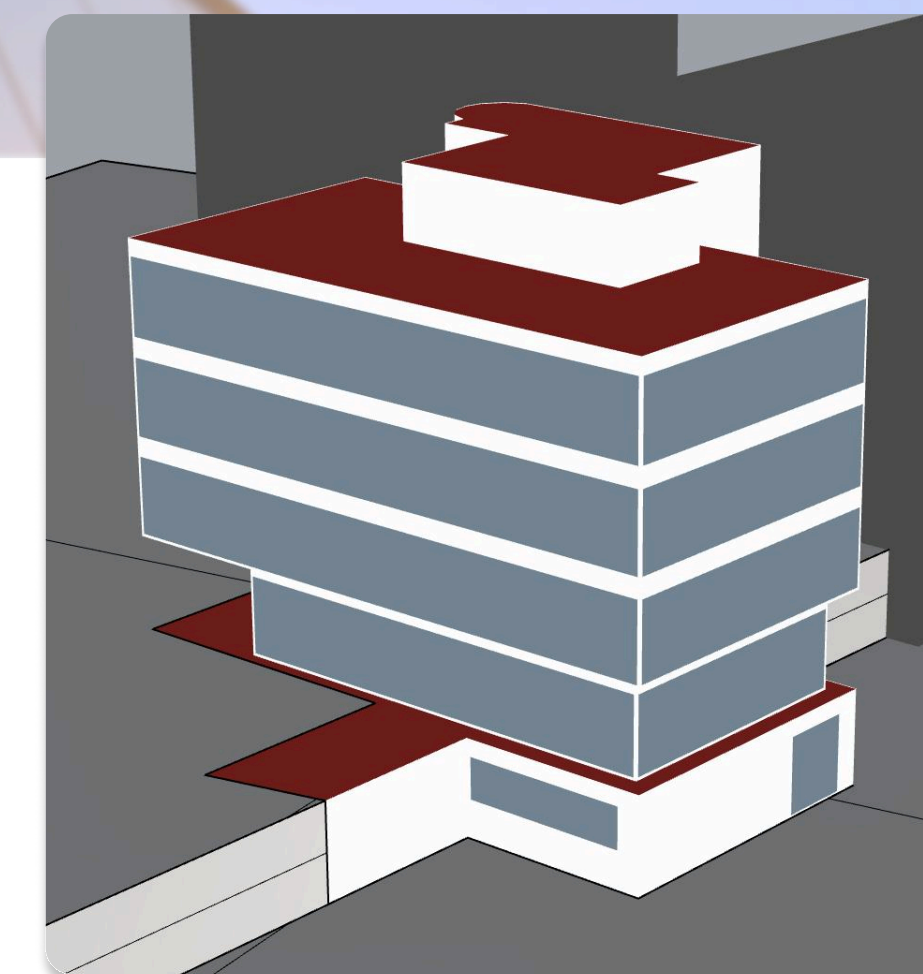
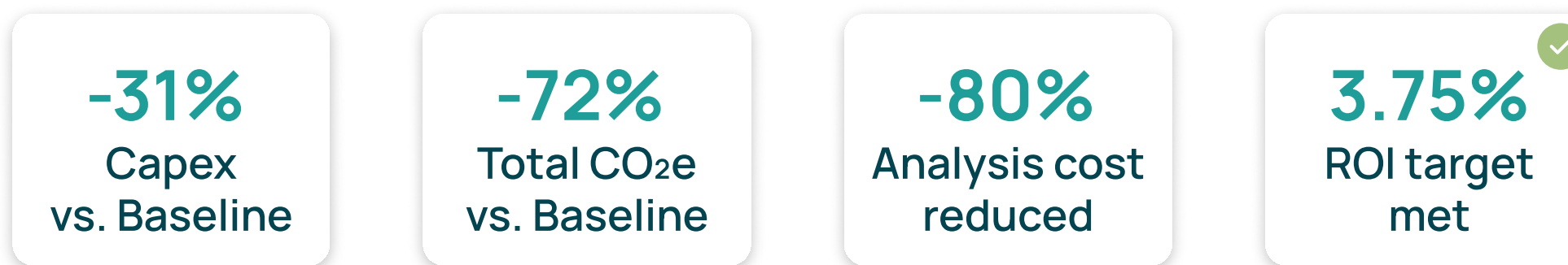
📅 Office, 1972

🏠 1200 m² rentable floor area

📏 EPC potential (CO₂) **F** → **A**

SCOPE

- FREO uses Optiml to model building and develop energetic retrofitting scenarios
- Office building in need of renovation
- High glazed area in temperate climate
- HVAC systems need urgent replacing
- Existing oil heating with heating ceilings



SUMMARY

- Replacement of shell (prev. glass facade) with recycled Al facade, efficient insulation, and triple-glazed wooden windows
- Air-water heat pump installed with BMS + Solar PV
- Advanced ventilation system (low-energy) with sun protection ventilation sashes
- Total CO₂e (Scope 1-3) saved: 698 tCO₂e (-72%) vs. Baseline

